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| heatrans | **Physics**  **Radiation** |  |
| **Worksheet-5-** |

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| Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Class: 8 / ……… |
| Date: 15/ 5 / 2012 |

1. What is radiation?

They are electromagnetic waves that travel though the space.

1. How radiation happens?

When an electromagnetic waves come in contact with an object, the waves transfer the heat to the object.

1. Examples of radiation:

* The sun warms the Earth through the radiation of electromagnetic waves.
* A camp fire
* A microwave oven
* A light bulb.

1. Absorption and emission of radiation
2. absorption of radiation

Radiation is absorbed by all objects and surfaces. This absorption causes a temperature rise

1. emission of radiation

Radiation is emitted by all objects and surfaces. This emission causes a temperature fall.

1. Factors that affect radiation
   1. Color of the surfaces: Dull , black surfaces absorb radiation more than shiny white surfaces.
   2. Surface area
2. Complete the following:

Dull black surfaces are good radiators and good absorbers.

Shiny bright surfaces are poor radiators and poor absorbers.

1. Common applications of radiation

a- Shiny teapot

b- Greenhouses